NWS FORM E-5 (11-88) (PRES. by NWS Instruction 10-924) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) **WFO Jackson, Mississippi**
MONTHLY REPORT OF HYDROLOGIC CONDITIONS	REPORT FOR: MONTH **May** YEAR **2012**
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE **Alan E. Gerard, Meteorologist In-Charge** DATE **06/12/2012**

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

X **An X inside this box indicates that no river flooding occurred within this hydrologic service area.**

Synopsis...

The month of May continued the above normal temperature trend across the Hydrologic Service Area (HSA). Temperatures averaged from 2.0 to 3.5 degrees above normal across the Hydrologic Service Area (HSA). The spring season from March through May was the warmest on record at Greenville, Vicksburg/Tallulah, Meridian, and Hattiesburg, while Jackson had the second warmest. During the month, scattered showers were common across much of Mississippi, but were less common across Northeast Louisiana and Southeast Arkansas. The overall trend for the HSA was below normal rainfall, except for a widespread area of above normal rainfall in East Mississippi.

The month opened with return flow from the Gulf of Mexico bringing relatively hot and humid conditions to the HSA. An upper level system traveled across the region from the 2nd into the 3rd. This system brought widespread showers to the region with some isolated heavy amounts. Rainfall was generally less than an inch but with isolated areas from 1.50 to 3.00 inches. The return flow pattern remained in place through the 7th. Some isolated to scattered light showers occurred across the area from the 5th to the 7th. A cold front began pushing into the northwest portions of the HSA late on the 7th. Some damaging winds were reported in northwest portions of the region ahead of the front. The front pushed through the area on the 8th. Most rainfall reports were less than 0.75 inches, but there were scattered areas of 1.00 to 3.00 inches reported. Another reinforcing cold front pushed across the HSA on the 9th and brought some light showers to northern areas of Mississippi and slightly cooler and drier air to the entire region as high pressure built in from the north.

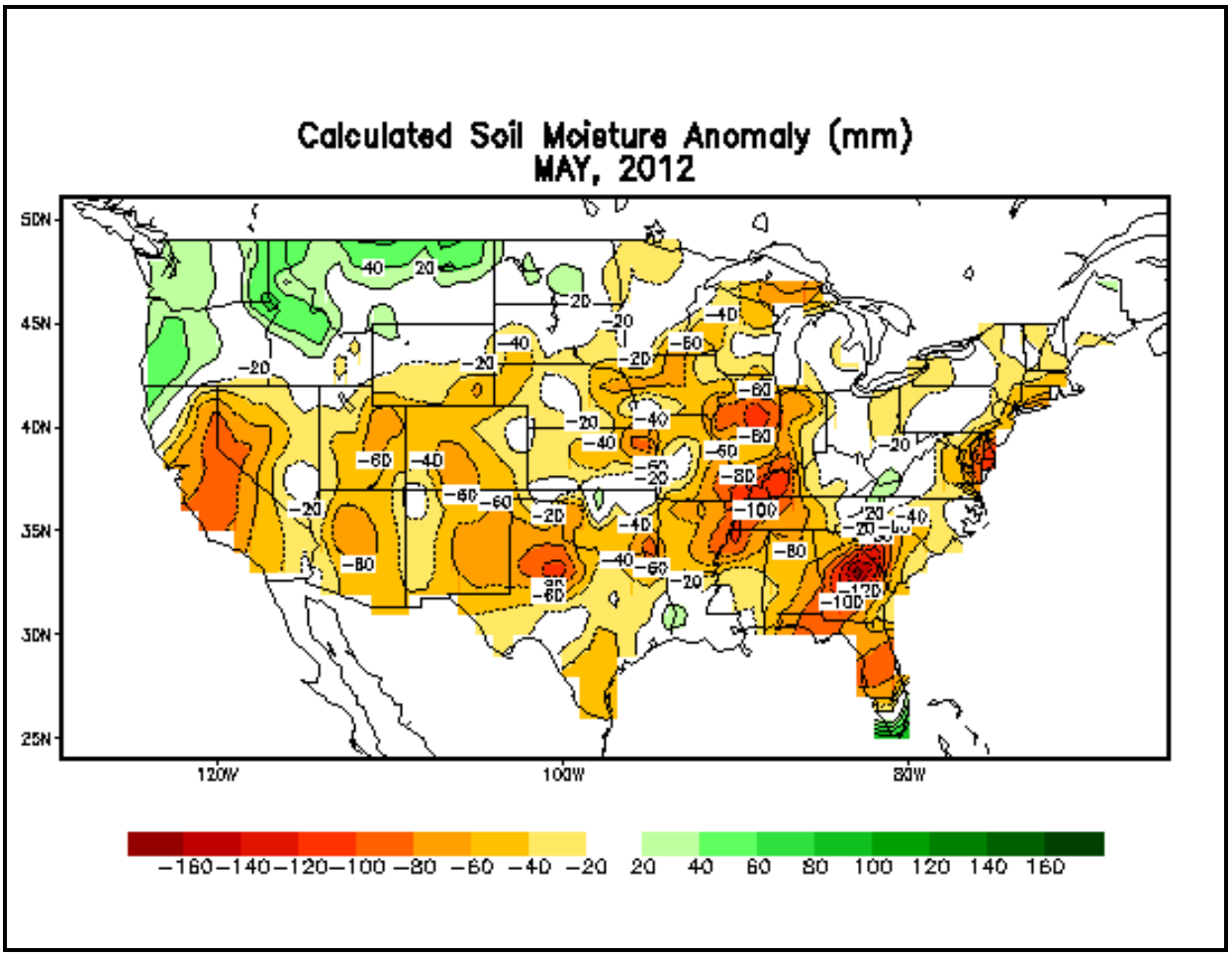
Cyclogenesis took place off of the Louisiana-Texas Coast on the 11th. This low pressure system was located over extreme Northeast Mississippi by the morning of the 13th. This system brought scattered, heavy rainfall to portions of Central and Northeast Mississippi where rainfall ranged from 1.00 to 4.00 inches. Most areas received rainfall with this event except for Southeast Arkansas, Morehouse Parish in Louisiana, and portions of the Yazoo Delta where little to no rainfall occurred. High pressure moved into the HSA on the 13th and remained in control of the weather through the 20th.

Hot and humid conditions prevailed with only a few isolated showers and thunderstorms across the region during the period.

A cold front moved slowly across the HSA from the 21st until late on the 22nd. Large hail and damaging winds were reported across portions of Northeast Louisiana, Southeast Arkansas, and much of Central Mississippi on the 21st. Rainfall amounts were the greatest along the Natchez Trace Parkway and portions of Northeast Louisiana where scattered areas of 1.00 to 2.00 inches fell. Across the remainder of the HSA, showers were hit or miss, and rainfall amounts were less than inch. High pressure moved into the region and then shifted to the east fairly rapidly producing a strong influx of southerly, hot, and humid Gulf air by the 25th. A strong upper level ridge developed over the region keeping the region quite dry through the 29th. Only a few light isolated showers were reported on the 27th and 28th. On the 30th, a Mesoscale Convective System (MCS) developed along an outflow boundary produced by thunderstorms along a slowing front just to the north of the HSA. The MCS moved southeast during the day producing heavy rainfall, damaging high winds, and hail across the region. Rainfall from 0.25 to 3.00 inches was reported over much of Mississippi. Across Northeast Louisiana and Southeast Arkansas where rainfall did occur, it ranged from less than 0.25 to 1.00 inch. The 31st was another busy day with convection breaking out in the moist unstable air ahead of a cold front entering the northwest HSA during the early to late evening hours. Heavy rainfall, damaging winds, and hail were once again a problem. Rainfall across much of Mississippi and southern portions of Northeast Louisiana ranged from less than 0.25 to 1.50 inches East Mississippi had rainfall which ranged from 0.50 to in excess of 3.00 inches. Portions of Northeast Louisiana north of I-20 and Southeast Arkansas once again failed to receive significant rainfall. Rainfall ranged from no rainfall to maybe a half inch.

River and Soil Conditions...

Soil Moisture:



May 2012

Drought Comparison to prior month:

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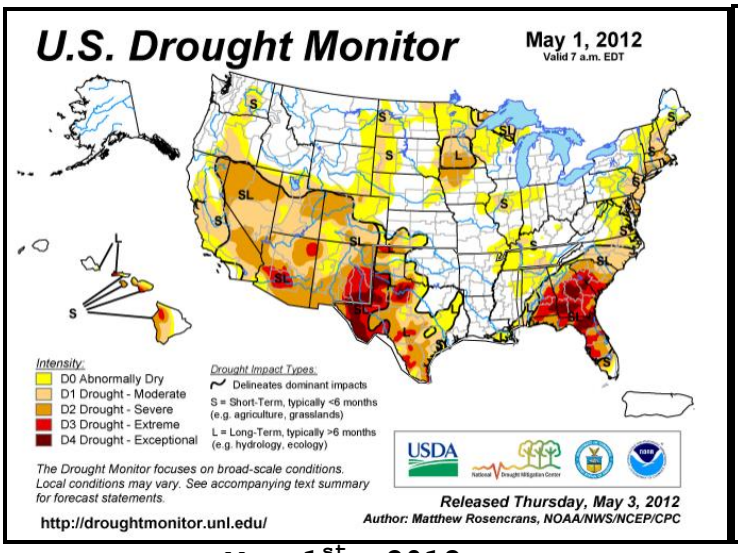
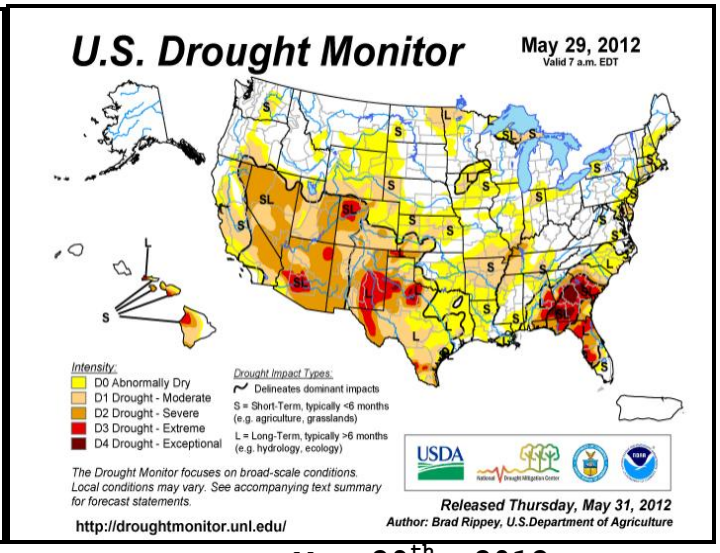


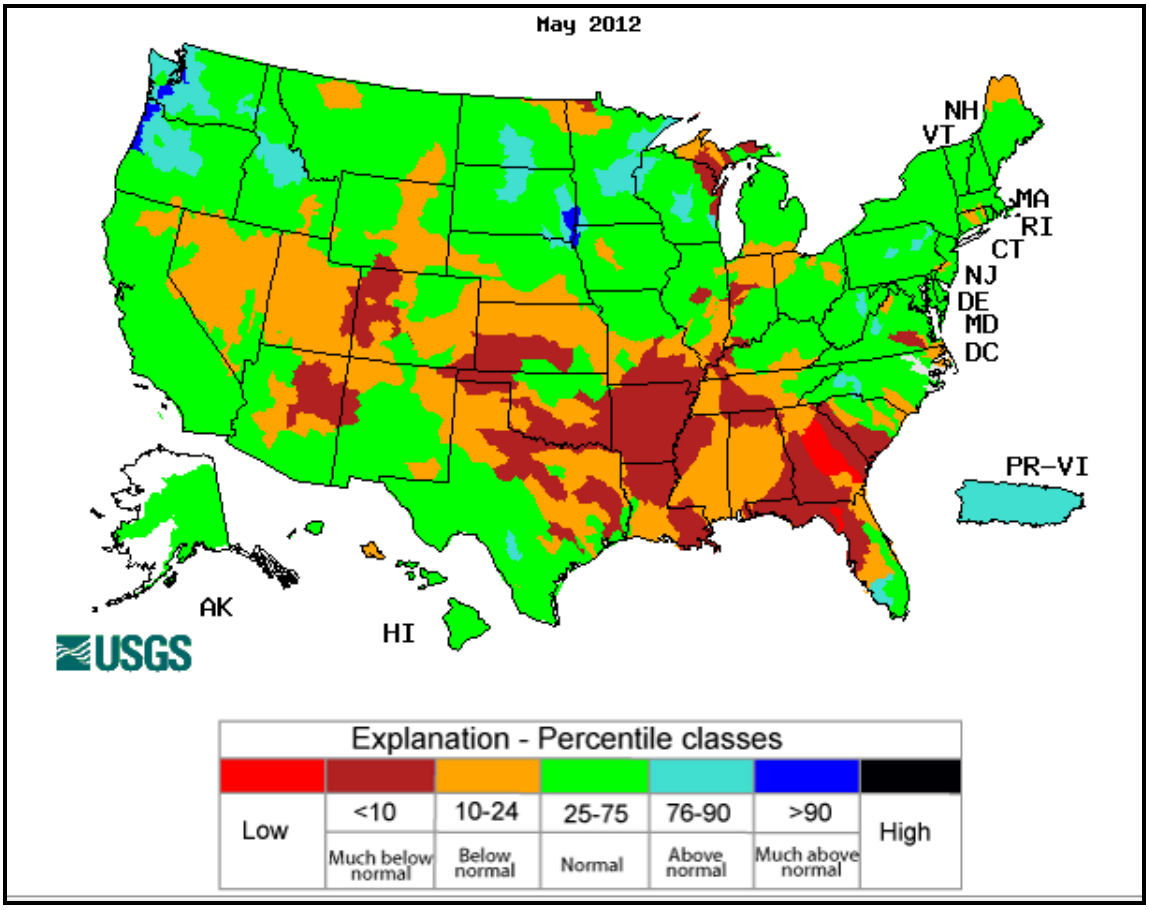
May 1st, 2012



May 29th, 2012

Streamflow:

The United States Geological Survey's (USGS) May 2012 river streamflow records were compared with all historical May streamflow records. Much below normal streamflow is reported across the Yazoo Basin of Mississippi and Ouachita River Basin in Southeast Arkansas and Northeast Louisiana. Below normal streamflow is occurring across the remaining river basin across the HSA.



No river flooding was reported during the month. Minor rises occurred along the Big Black, Upper Pearl, Chunky, and Chickasawhay Rivers. Little change in river stage occurred along all other river systems.

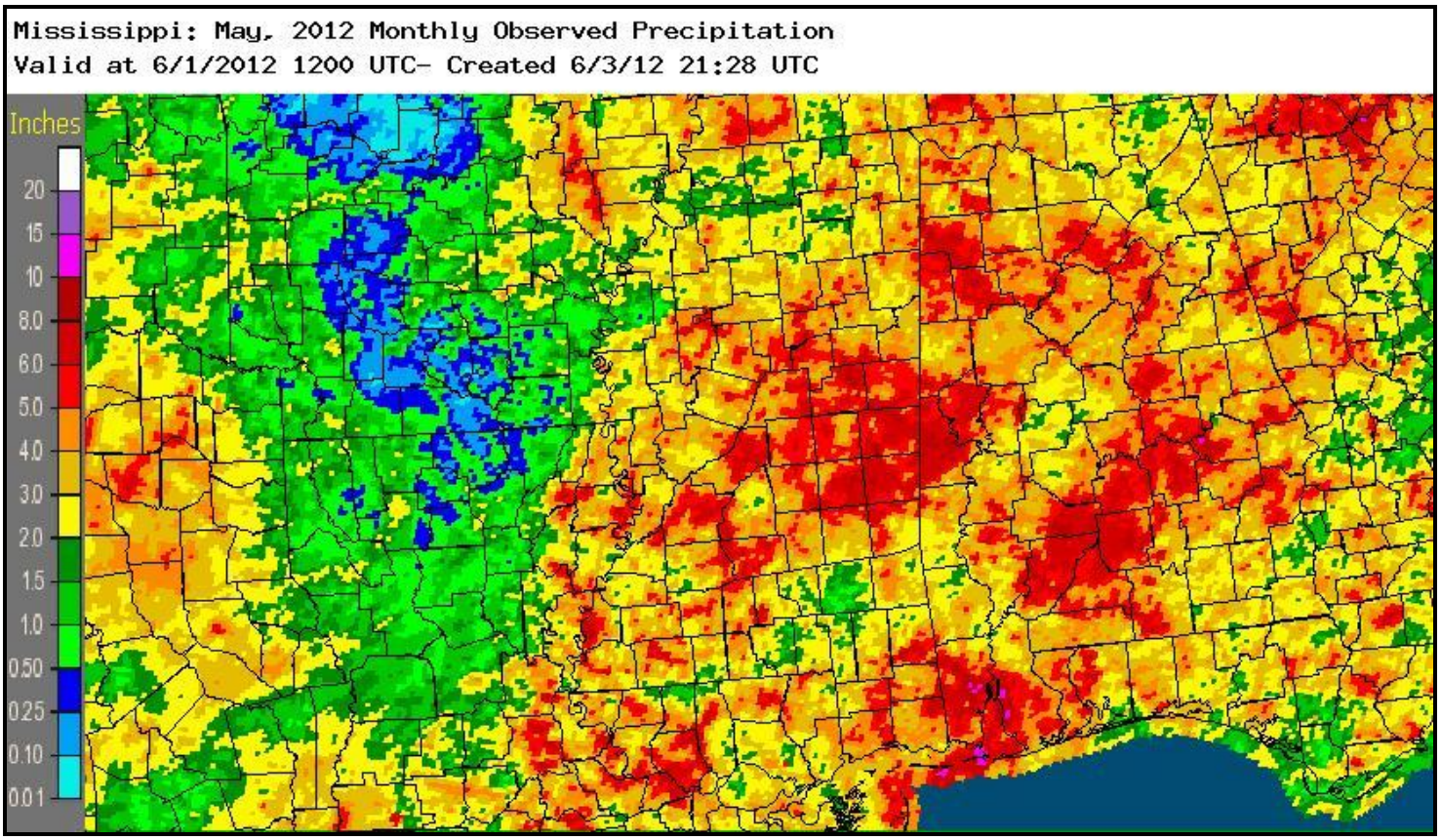
Temperatures are expected to remain above normal while chances are even for above normal, below normal or normal rainfall in the 1 to 3 month time period. Based on current soil moisture, streamflow, and 1 to 3 month weather outlooks, flood potentials are as follows:

***Pearl River System*:**	**Average.**
***Yazoo River System*:**	**Below average.**
***Big Black River System*:**	**Average.**
***Homochitto River System*:**	**Average.**
***Pascagoula River System*:**	**Average.**
***Northeast LA and Southeast AR*:**	**Below average.**
***Tombigbee River System*:**	**Below average.**
Mississippi River:	**Average.**

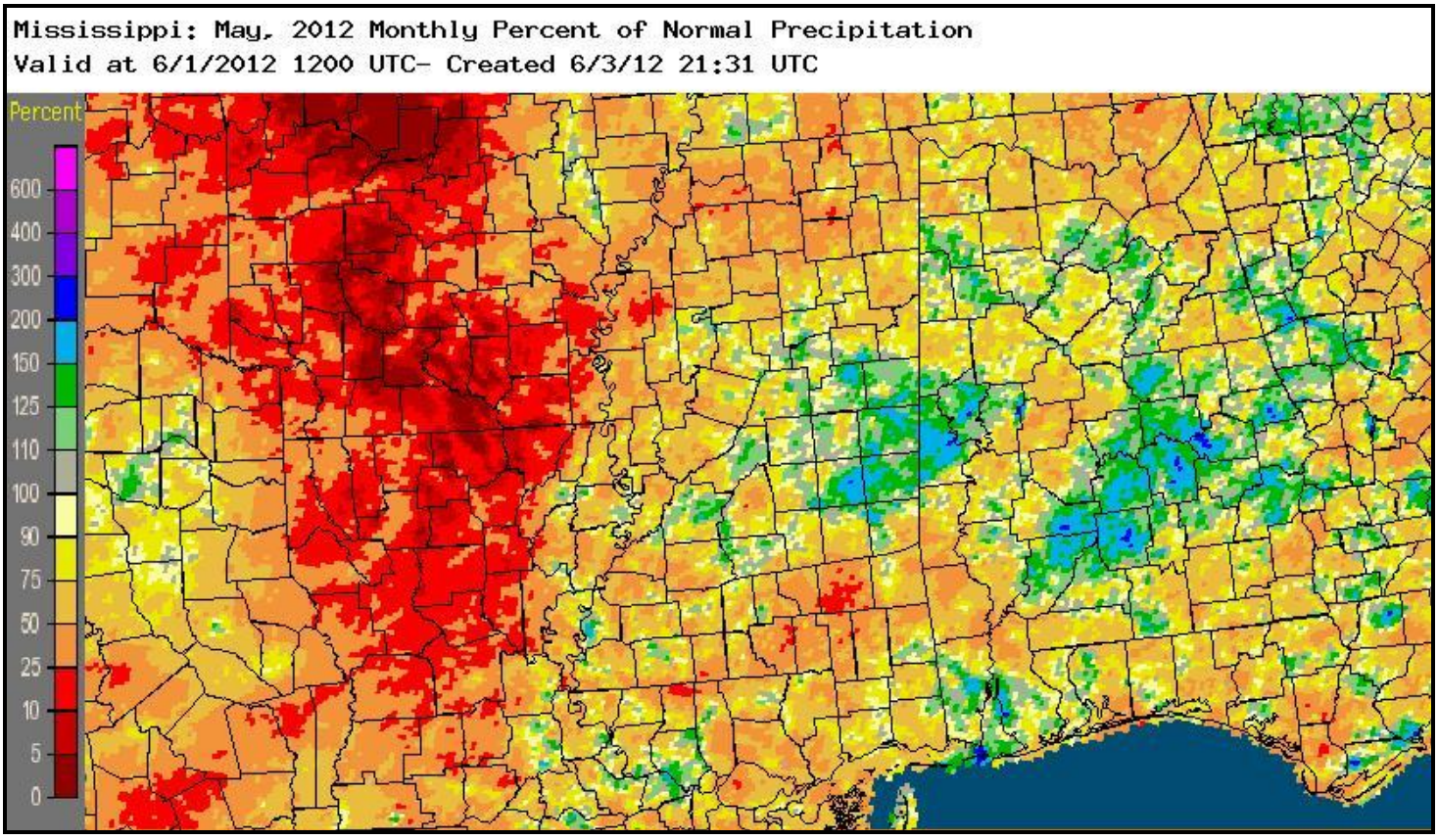
Rainfall for the month of May:

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on April 30th until 7 am on May 31st were: 6.50 inches McCool, MS; 6.06 inches at Louisville, MS; 6.05 inches at Dekalb, MS; 5.65 inches at Okatibbee Reservoir, MS; 5.56 inches at Canton, MS; and 5.54 inches at Collinsville, MS.

Some lesser monthly totals: 0.16 inches at Bastrop, LA; 0.53 inches at Pioneer, LA; 0.76 inches at Crossett AR; 1.30 inches at Cleveland, MS; 1.22 inches at St Joseph, LA; 1.16 inches at Laurel, MS; and 1.36 inches at Monticello, MS.



May 2012 Rainfall Estimates



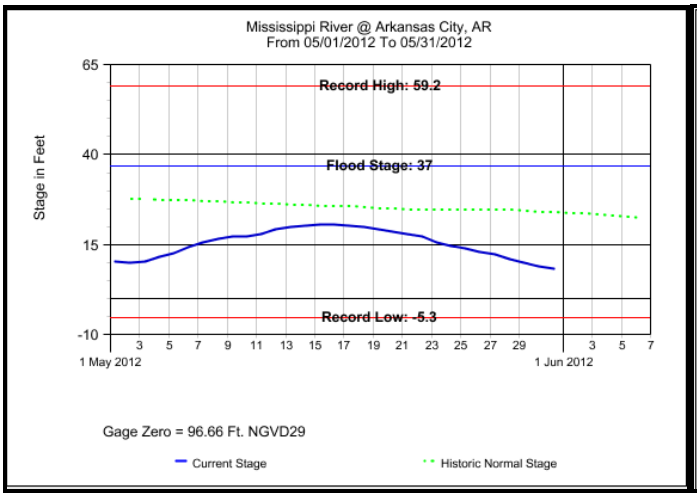
May 2012 Percent of Normal Rainfall Estimates

Note: Observer rainfall and MPE may differ due to time differences.

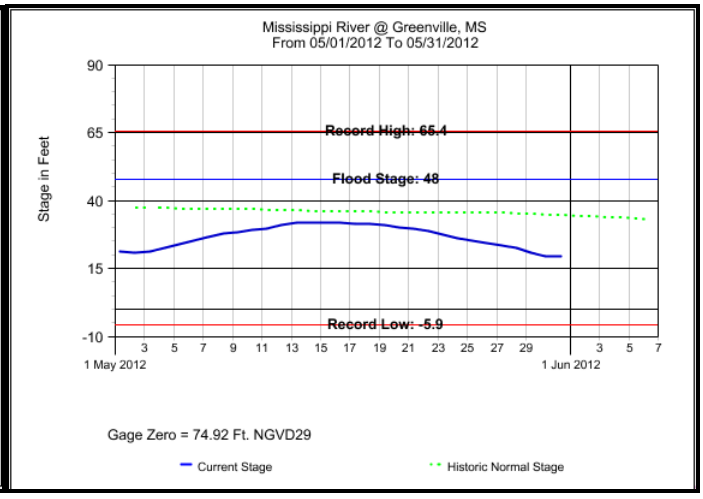
May rainfall for Selected Cities...

City (Airport)	May Rainfall	Departure from normal	2012 Rainfall	2012 Departure from Normal
Jackson, MS	6.69	+2.31	30.62	+6.51
Meridian, MS	5.85	+1.35	28.55	+3.12
Greenwood, MS	2.07	-2.88	16.79	-6.54
Greenville, MS	3.04	-1.87	15.79	-8.47
Hattiesburg, MS	1.77	-3.32	27.14	+0.60
Vicksburg, MS	5.78	+0.82	26.25	+0.95

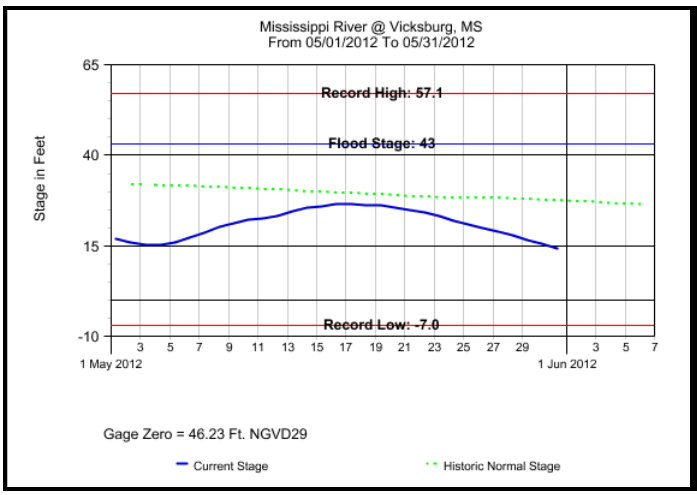
Mississippi River...
Mississippi River Plots for May, 2012
Plots Courtesy of the United States Army Corps of Engineers



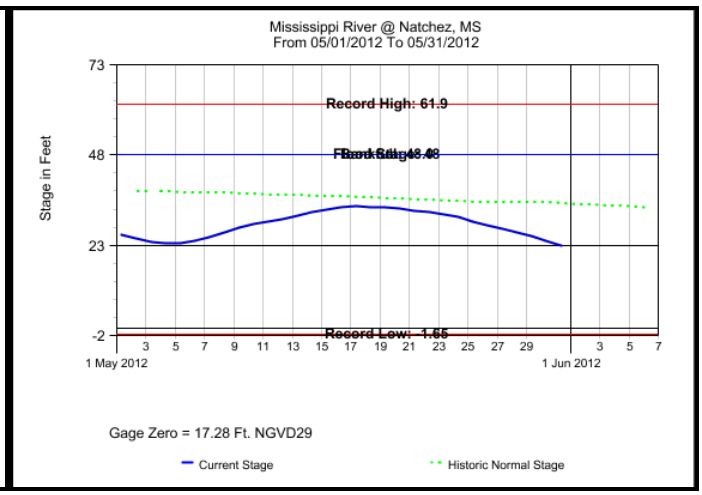
ARKANSAS CITY, MS



GREENVILLE, MS



VICKSBURG, MS



NATCHEZ, MS

Preliminary high and low stages for the month:

Location	FS	High Stage(ft)	Date	Low Stage(ft)	Date
Arkansas City, AR	37	20.72	05/15/12	7.39	05/31/12
Greenville, MS	48	31.89	05/15/12	18.12	05/31/12
Vicksburg, MS	43	26.58	05/17/12	13.88	05/31/12
Natchez, MS	48	33.76	05/17/12	22.32	05/31/12

Total Flood Warning products issued: 0
Total Flood Statement products issued: 0
Total Flood Advisories MS River : 0
Daily Climate and Ag WX Products (AGO'S) issued: 31
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31
Daily River and Lake Summary Products (RVD'S) issued: 31

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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District